UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

June 22, 2017

Mr. Anthony R. Brown
Environmental Manager
Atlantic Richfield Company
4 Centerpointe Drive, LPR 4-435
La Palma, CA 90623-1066

Re: Draft Focused Feasibility Study Work Plan, Evaluation of Remedial Technologies Leviathan Creek Beaver Dam/Pond Complex, Leviathan Mine Site, Alpine County, California, dated March 21, 2017

Dear Mr. Brown,

EPA has completed its review of Atlantic Richfield Company's Draft Focused Feasibility Study Work Plan, *Evaluation of Remedial Technologies Leviathan Creek Beaver Dam/Pond Complex, Leviathan Mine Site, Alpine County, California*, dated March 21, 2017. This work plan was submitted as part of the Scope of Work for completing the remedial investigation and feasibility study to identify a long-term remedy pursuant to Administrative Order for Remedial Investigation and Feasibility Study (RI/FS), Leviathan Mine, Alpine County, California (CERCLA Docket No. 2008-18, June 23, 2008).

Background: Since 2010, beavers have constructed dams along Leviathan Creek at the Leviathan Mine Superfund Site (Site). Beaver activity increased over time, and as many as 50 beavers had constructed approximately 28 dams by 2015. These dams impound water, creating a seasonal quiescent environment that allows acidic conditions to occur, re-contaminating water that has been treated through the removal actions upstream on the Site.

The Draft FFS work plan proposes an approach that is expected to provide information for the FS while reducing the threat of sudden release of acid water from the beaver ponds during the 2017 field season. The goals of the Draft FFS work plan are to:

- Provide information to inform the FS with site-specific information on the effectiveness, implementability, and cost of remedial technologies that may be components of remedial alternatives to address stabilization of alluvial material in applicable on-property reaches of Leviathan Creek; and
- Partially reduce the volume of impounded water in the Beaver Dam/Pond Complex (BD/PC) to address concerns that an uncontrolled release of impounded water and alluvial material if one or more beaver dams were to fail could affect areas downstream of the BD/PC.

To achieve these goals, ARC proposes to:

- Remove ponded water with pumping and temporary diversion, using the same successful method performed during 2015 field sampling;
- Install gabion dams at the present locations of Beaver Dams 3 and 5 to dissipate energy and prevent downstream migration of alluvial material;
- Breach and remove Beaver Dams 3, 4, and 5; and
- Implement field trials of four different sediment stabilization techniques .

Consu ltation with EPA Headquarters: The Region discussed with EPA's Office of Superfund Remediation and Technology Innovation (OSRTI) whether a formal consultation was required for this FFS. The Region and OSRTI had a "pre -consultation call" on June 13, 2017 . OSRTI agreed with the Region 9 conclusion that the planned activities will not affect or change the fluid release hazard at the Site , and that formal consultation was not necessary .

Approval and Comments: EPA approves the submitted work plan, subject to responses to the followi ng comments :

- **Section 4.4-Waste Classification and Material Storage Section 8.5**. The landowners, Lahontan Regional Water Quality Control Board (RWQCB) and the U.S. Forest Service (USFS) have expressed concern about the placement of the removed debris. The debris removed from the dam locations will be stockpiled east of Beaver Pond 3 near the former haul road, outside of the 100-year floodplain and away from the active channel and test plots as shown on Figure 8-2. The FFS work plan suggests that stockpiled woody debris will be chipped and used for maintenance of existing access roads and reclamation activities (as possible), or will be disposed of off-site as part of the final remedy. EPA is <u>not</u> approving use of the material on roads or in reclamation activities at this time. EPA expects that additional discussion with the land owners will occur regarding the disposition of this material. The FFS report should analyze alternatives for the long-term management of this material.
- **Section References are needed:** Starting in Section 6.0, many of the section references are to a Section 0. The correct section reference should be provided in each instance.
- **Section 6.1.5:** The text refers to Section 8.5.5 for a description of turbidity monitoring. There is not a Section 8.5.5 in the document. The correct section should be referenced.
- **Section 6.4.2:** The third sentence is unclear and should be rewritten for clarity. EPA assumes the sentence is meant to read as follows: In Figure 6-5 the current Beaver Dams 3, 4, and 5 will be replaced with lower-crest elevation gabion dams.
- **Section 8.7.3:** Please modify the text to include the frequency of turbidity monitoring.

- **Table 7-1:** Table 7-1 includes an option for Sediment Removal. Please also include a similar option for floodplain soil removal in Table 7-1.

At all times during implementation of the subject work plan, ARC shall inform EPA of any changes identified or anticipated. This work should be completed during the 2017 field season.

If you have any questions, please feel free to contact me at riley.gary@epa.gov or (415) 972-3003; or Lynda Deschambault at (415) 947-4183 or deschambault.lynda@epa.gov.

Sincerely,

Gary J. Riley, P.E. (for Lynda Deschambault)
Remedial Project Manager

Copy by electronic mail:

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